# Appendix J

## Bibliography of New VSL Studies

**Recent Value of Statistical Life Literature**

(compiled via an EconLit search on 3/16/04 of studies published between 1995 and 2003 and cross-referenced against versions of the Mrozek and Taylor; Kochi, et al; and Viscusi and Aldy meta-analyses)

**Studies that likely provide empirical VSL estimates**

**Baranzini, Andrea; Ferro Luzzi, Giovanni. 2001. The Economic Value of Risks to Life: Evidence from the Swiss Labour Market.** ***Swiss Journal of Economics and Statistics*** **137(2): 149-70.**

Abstract: In this paper, we use the hedonic approach to estimate the value of a statistical life based on the 1995 Swiss Labour Force Survey (SLFS) and the 1994 Swiss Wage Structure Survey (SWSS). Roughly, the value of a statistical life in Switzerland ranges from CHF 10 to 15 million (6.5-9.5 million current US$). However, more important than the absolute value, our estimates should be taken as an indicator of the value of a statistical life, which is of an order of magnitude higher than previous studies on the value of life in Switzerland, none of which is based on the hedonic approach. Our study confirms previous literature, since the value of statistical life varies with risk level, union coverage, age, and model assumptions. In particular, by separating between individuals with union coverage and those without, we find a slightly higher (but not significantly so) risk premium for the former, which runs counter the idea that in Switzerland unions bargain for safety measures. Finally, along the lines of Moore and Viscusi (1988), we take into account the discounted life years lost, and find a discount rate not significantly different from zero with SLFS and even negative with the SWSS sample.

**Black, Dan A.; Kneiser, Thomas J. 2003. On the Measurement of Job Risk in Hedonic Wage Models.** ***Journal of Risk and Uncertainty*** **27(3): 205-20.**

Abstract: We examine the incidence, form, and research consequences of measurement error in measures of fatal injury risk in U.S. workplaces using both Bureau of Labor Statistics and National Institute of Occupational Safety and Health data. Of the various measures examined the NIOSH industry risk measure produces implicit value of life estimates most in line with both economic theory and the mode result for the existing literature. Because we find non-classical measurement error that differs across risk measures and is not independent of other regressors, innovative statistical procedures need be applied to obtain statistically improved estimates of wage-fatality risk tradeoffs.

**Madheswaran, Subramaniam; Shanmugam, Kumarapalayam R. 2003. Impact of Trade Unions on the Compensation for Job Risks: Evidence from the Indian Labor Market.** ***RISEC: International Review of Economics and Business*** **50(1): 121-41.**

Abstract: This paper examines the workers' behavior in choosing their job risks and the role of trade unions in influencing the wage-risk trade-off. The empirical results provide a strong support for the efficiency of labor market in deriving the optimal risk level. The calculated value of statistical life is Rs.15.55 million and Rs.5.49 million and the estimated value of statistical injury is Rs.5598 and Rs.2059 for the union and non-union sector workers respectively. Comparison of our estimated value of life with those from developed nations indicates that our value is lower than the values from developed nations. The estimated results may have important

implications for policy and can be used to value reductions in risk of death achieved by industrial safety programs or environmental health programs.

**Perreira, Krista M.; Sloan, Frank A. 2002. Living Healthy and Living Long: Valuing the Nonpecuniary Loss from Disability and Death.** ***Journal of Risk and Uncertainty*** **24(1): 5-29.**

Abstract: This analysis uses three valuation approaches--risk-risk tradeoff, paired risk-dollar comparison, and utility function estimation--to estimate the nonpecuniary cost associated with disability in late life. In addition, we obtain an estimate of the value of life using a paired risk-dollar comparison. The data were obtained from interviews with 548 persons using an iterative computerized questionnaire. Respondents reported a median value of life of $12 million. They were willing-to-pay .7-1.4 million to avoid disability in late life or approximately $47-$95 thousand for each year of disability over age 62. The results were robust to the valuation technique employed.

**Persson, Ulf, et al. 2001. The Value of Statistical Life in Transport: Findings from a New Contingent Valuation Study in Sweden.** ***Journal of Risk and Uncertainty*** **23(2): 121-34.**

Abstract: This article presents the results of a contingent valuation study from Sweden aimed at estimating the value of a statistical life (VOSL) in road traffic safety. Data on respondents' own subjective risk was collected by use of visual aids presented in a mail questionnaire. The relationship between willingness-to-pay (WTP) and absolute risk reduction was estimated by using a non-linear, least absolute deviation estimation method. This study generated an income-adjusted VOSL of SEK22.3 million (US$2.6 million). Analysis of WTP's sensitivity to probability variation indicates that in future studies, valuing risk reductions in road traffic, the magnitude of absolute risk and relative risk reductions to consider should be in perceptible range. On addition it should also be possible for respondents to compare the magnitudes of different risk reductions.

**Viscusi, W. Kip. 2003. Racial Differences in Labor Market Values of a Statistical Life.** ***Journal of Risk and Uncertainty*** **27(3): 239-56.**

Abstract: This article constructs measures of job fatality rates for black and white workers using information on job-related fatalities from 1992-1997. The fatality rates for black employees are somewhat greater than those for whites. Each of these groups receives significant compensating wage differentials for fatality risks, controlling for nonfatal risks and expected workers' compensation benefits. The implicit value of a statistical life is lower for black workers than for whites. These results in conjunction with evidence that blacks receive less annual compensation for fatality risks than do whites imply that black and white workers face different market offer curves that are flatter for blacks than for whites.

**Other Estimates (e.g., Illness, Injury, Healthy Life-Years, Jury Awards)**

**Abelson, Peter. 2003. The Value of Life and Health for Public Policy.** ***Economic Record*** **79(0): S2-13.**

Abstract: Expenditure on health and safety is a substantial part of GDP, but public agencies in many countries, including Australia, have only qualitative views about the value of life and health. Also, despite considerable work by economists on the value of life and health in recent

years, some important issues, such as the value of a healthy life-year, remain unresolved. This paper presents a framework for valuing life and health. It then draws on international and Australian research to estimate possible values for life, healthy life-years, and various chronic and acute health states for public policy purposes in Australia.

**Lalive, Rafael. 2003. Did We Overestimate the Value of Health?** ***Journal of Risk and Uncertainty*** **27(2): 2003.**

Abstract: Adam Smith's idea that wage differences reveal preferences for risk rests on strong theoretical foundations. This paper argues, however, that the dominant approach to identify compensating wage differentials--regressing individual wages on aggregate measures of risk--may lead to arbitrary estimates of these risk differentials. In a dataset with information on both, the incidence of illnesses or injuries across firms and industries, I calculate an implicit value of one injury or illness of about (1990) USD 18,800 pursuing the dominant approach. In contrast, regressing wages on the incidence of risk across firms produces a value of one injury or illness of about USD 11,300.

**Smith, Stan V. 2000. Jury Verdicts and the Dollar Value of Human Life.** ***Journal of Forensic Economics*** **13(2): 169-88.**

Abstract: Most economic studies estimate the value of life to range from two to four million dollars. These estimates have served as a standard for governments and corporations in gauging the cost of safety, and for juries in determining awards for the loss of enjoyment of life. Better research on the value of life should give judges greater comfort in allowing economists to testify to such values. This study compares the value of life reported in the economic literature with the value of life implied by jury awards in drunken driving cases. The author uses regression analysis and the present value of impairment, to estimate how juries value life, and concludes that juries value life at $2.3 million to $4.9 million. While jury awards vary considerably, the regressions explained up to 50 percent of the variation in awards, providing further evidence that juries are rational in their deliberations on such matters.